

REMARKS

Claims 1, 2, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mama (JP 11-034610) in view of Kojima (JP 58167203). Applicant traverses this rejection for the reasons given below.

Regarding claim 1, applicant traverses the rejection because the cited prior art, taken alone or in combination, fails to disclose or suggest a ratio h/SH of a tire radial-direction length h between edges of the extension portions and edges of the belt ply, and a tire section height SH , where $h/SH \leq 1.5/100$, as recited in claim 1. The examiner asserts that the drawings of Mama show that a radial separation of axial and of a belt cover ply and a belt ply is relatively small. However, Mama is silent regarding a tire section height, a radial separation distance between axial ends of a belt cover ply and a belt ply, or any relationship between these distances.

The examiner cites Kojima only as disclosing a coating rubber having a loss factor that is greater than zero and less than 0.10. However, Kojima only discloses that a belt ply is disposed between a carcass ply and a tread rubber. That is, Kojima fails to disclose a belt cover ply. Thus, it follows that because Kojima fails to disclose a belt cover ply, Kojima necessarily also fails to disclose a ratio involving the distance between extension portions of a belt cover ply and a belt ply as compared with a section height.

In contrast, the present application teaches that a ratio h/SH of a tire radial-direction length h , measured between edges of an extension portion of a belt cover ply and edges of a belt ply, and a length SH measured as the tire section height should be less than or

equal to 1.5/100. Maintaining this ratio advantageously moderates heat generated in a shoulder portion of the tire by the repeated deformation received when the tire is rolling. Because Mama and Kojima, taken alone or in combination, fail to disclose or suggest the ratio h/SH, applicant respectfully requests withdrawal of the rejection of claims 1 and 2.

Regarding claim 9, applicant traverses the rejection because the cited prior art references fail to disclose or suggest a belt cover ply that includes a main belt cover section and separate belt cover extension sections disposed on each side of the main belt cover section.

As shown in Fig. 5 of the present application, a pneumatic tire T3 includes a belt cover ply 8' that has a main belt cover section 8'X disposed radially outward of belt plies 5A and 5B, and a belt cover extension section 8'Y disposed on one side of the main belt cover section 8'X. As is clearly shown in Fig. 5, the main cover section 8'X and the belt cover extension sections 8'Y are separate pieces, and are not connected.

In contrast, Mama discloses only that belt cover layers cover edges of a plurality of belt layers. As shown in Figs. 1 and 2 of Mama, belt cover layers 6 are disposed only at inside and outside shoulders of the tire. The belt cover layers cover the edges of the underlying belt plies, and extend beyond the edges of the belt plies. However, Mama fails to disclose a belt cover layer that includes a main belt cover section for covering the belt layers. That is, Mama does not disclose that the belt cover layers are disposed on each side of a main belt cover section, as recited in claim 9

Additionally, as discussed above, Kojima fails to disclose any belt cover ply.

Thus, it follows that Kojima fails to disclose a belt cover ply including a main belt cover section and belt cover extension sections, as defined in claim 9. For these reasons, applicant respectfully requests withdrawal of the rejection of claims 9 and 10.

Claims 3, 5, 11 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mama and Kojima, and further in view of Mochida (JP 02074403) and Yamamoto (JP 06092108). Claims 3 and 5 depend from claim 1, and claims 11 and 13 depend from claim 9. Thus, each of these claims incorporates all of the features of its respective independent claim, plus additional features. Accordingly, applicant traverses this rejection for at least the reasons recited above with respect to claims 1 and 9, and because Mochida and Yamamoto fail to remedy the deficiencies identified above with respect to Mama and Kojima. Mochida and Yamamoto are cited only as disclosing a belt cushion rubber layer disposed between a belt layer and a carcass layer. However, neither Mochida nor Yamamoto discloses or suggests the ratio h/SH being equal to or less than 1.5/100, as recited in claim 1. Similarly, neither Mochida nor Yamamoto discloses a belt cover ply that includes a main belt cover section and belt cover extension sections separate from the main belt cover section and disposed on each side of the main belt cover section, as recited in claim 9. For these reasons, applicant respectfully requests withdrawal of claims 3, 5, 11 and 13.

Claims 4 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mama, Kojima, Mochida and Yamamoto, and further in view of Motomura (USPN 5,215,612). Claims 4 and 12 ultimately depend from independent claims 1 and 9

respectively. Thus, claims 4 and 12 incorporate all of the features of their respective independent claims, plus additional features. Accordingly, applicant traverses this rejection for the reasons discussed above with respect to claims 1 and 9, and because Motomura fails to remedy the deficiencies identified with respect to these rejections. For these reasons, applicant respectfully requests withdrawal of the rejection of claims 4 and 12 for the reasons discussed above with respect to claims 1 and 9.

Claims 1, 6, 8-10, 14 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Serra (WO 2002/26878) in view of Mama and Kojima. Applicant traverses this rejection for the reasons below.

Regarding claim 1, applicant traverses the rejection because the cited references, taken alone or in combination, do not disclose or suggest a pneumatic tire having a ratio h/SH of a tire radial-direction length h between edges of the extension portions and edges of the belt ply, and a section SH is less than or equal to 1.5/100.

Serra discloses a tire including two belt strips and a reinforcing layer placed on the radially outermost belt strip. However, Serra is silent regarding any relationship between a radial distance between edges of the reinforcing layer and edges of the outermost belt layer, as compared with the section height of the tire. The examiner asserts that the ends of the belt cover ply and the underlying belt structure disclosed by Serra are not separated by substantial radial distance, and that accordingly, one of ordinary skill in the art would have expected the tire of Serra to satisfy the ratio claimed in the present specification. However, Serra fails to disclose any of the radial distance separating the belt cover ply and the underlying belt ply,

the section height of the tire, or any relationship between the two distances. Accordingly, Serra cannot disclose the ratio h/SH as recited in claim 1.

Mama discloses a pneumatic radial tire including a plurality of belt layers, and belt cover layers arranged such that they cover at least both edges of the belt layers. However, as discussed above, Mama fails to disclose a radial distance between the belt cover layers and the underlying belt layers. Moreover, Mama fails to disclose a section height of the pneumatic tire. Accordingly, it is not possible to ascertain a ratio between the two distances from the disclosure of Mama.

Kojima is cited by the examiner only to disclose the properties of a belt ply coating rubber. As discussed, above, Kojima fails to disclose a belt cover ply, and thus clearly does not show a distance between a belt cover ply and a belt ply, or the ratio h/SH as recited in claim 1. Accordingly, none of the cited prior art references, taken alone or in combination, disclose or suggest the ratio h/SH of a tire radial-direction length h, measured between edges of the extension portions and edges of the belt ply, and a tire section height SH being less than or equal to 1.5/100, as recited in claim 1. For this reason, applicant respectfully requests withdrawal of the rejection of claim 1 and its respective dependent claims.

Regarding claim 9, applicant traverses the rejection because the cited prior art references, taken alone or in combination, do not disclose or suggest belt cover ply that includes a main belt cover section and separate belt cover extension sections disposed on each side of the main cover section.

Serra discloses a pneumatic tire including two belt strips and a reinforcing layer disposed radially outward of the outermost belt strip. However, the reinforcing layer disclosed by Serra is of unitary construction. That is, Serra fails to disclose a reinforcing layer including a main cover section and separate extension section that extend beyond the edges of the underlying belt layers.

As discussed above, Mama also fails to disclose a reinforcing layer having both a main cover section and separate extension sections. Mama discloses a pneumatic radial tire including a plurality of belt layers disposed outward of a carcass layer, and belt cover layers arranged so that they cover at least both edges of the belt layers. As shown in Fig. 1 of Mama, belt cover layer 6 may be disposed only near the edges of underlying belt layers. However, Fig. 1 fails to show a belt cover layer that includes a main belt cover section for covering the underlying belt layers. Instead, Fig. 1 of Mama shows only belt cover layers which extend beyond the edges of the underlying belt plies. Moreover, Fig. 1 of Mama fails to show that belt cover layers are disposed on each side of a main belt cover section, as recited in claim 9.

The examiner cites Kojima only for disclosing a belt ply coating rubber having a loss factor in a range of 0.10 or less. Kojima fails to disclose a tire including a belt cover layer. Accordingly, it follows that Kojima must fail to disclose a belt cover layer including both a main belt cover section and a belt cover extension section separate from the main belt cover section, as required by claim 9. Thus, any combination of Serra, Mama and Kojima must fail to disclose or suggest the belt cover ply including a main belt cover section and a

belt cover extension section separate from the main belt cover section, and disposed on each side of the main belt cover section, as required by claim 1. For these reasons, applicants respectfully request withdrawal of the rejection of claim 9 and its respective dependent claims.

Claims 7 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Serra, Mama and Kojima, and further in view of Kan (US 4,444,236) and Haneda (JP 07-257116). Claims 7 and 15 ultimately depend from claims 1 and 9, respectively. Accordingly, each of these claims incorporates all of the features of its respective independent claim, plus additional features. Therefore, applicant traverses the rejection of claims 7 and 15 for the reasons discussed above with respect to claims 1 and 9, and because Kan and Haneda fail to remedy the deficiencies identified above. Withdrawal is respectfully requested.

Finally, applicant has added new dependent claims 17 and 18, which depend from claims 1 and 9, respectively. Applicant asserts that these claims are allowable for at least the reasons discussed above with respect to claims 1 and 9.

For all of the above reasons, applicant submits that this application is in condition for allowance, which is respectfully requested. The examiner should call applicant's attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge fees which may be required to this application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,

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